

### Amendments to the Claims

1. (Currently Amended) A computer-implemented method for troubleshooting a problem associated with a cellular network site, comprising:

receiving a symptom input describing the symptoms of the problem;

determining whether at least one of a plurality of rules is invoked by the symptom input, wherein the plurality of rules comprise a plurality of if-then statements, wherein the plurality of if-then statements comprise a plurality of if portions and a plurality of then portions, the then portions corresponding to potential solutions to the problem; and

if so, then outputting a potential solution to the problem wherein the potential solution is determined by the invoked rule.

2. (Currently Amended) The method of claim 1 ~~wherein the plurality of if then statements comprise a plurality of if portions and a plurality of then portions; and~~ wherein determining whether at least one of a plurality of rules is invoked by the symptom input comprises determining whether the symptom input matches one of the plurality of if portions; and if so, then determining that the rule associated with the matched if portion is invoked.

3. (Currently Amended) The method of claim 1 [[2]] wherein outputting a potential solution to the problem comprises outputting the then portion of the invoked rule.

4. (Original) The method of claim 3 wherein outputting a potential solution to the problem comprises displaying the potential solution in a user interface of a computing device.

5. (Original) The method of claim 1 further comprising receiving a facts input describing relevant facts regarding the cellular network and wherein determining whether at least one of a plurality of rules is invoked by the symptom input further comprises determining whether at least one of a plurality of rules is invoked by the symptom input and the facts input.

6. (Original) The method of claim 1 further comprising that if a rule is not invoked, then adding the symptom input to a provisional rules list.

7. (Original) The method of claim 6 further comprising :  
receiving a potential solution input; and  
adding the symptom input and potential solution input as one of the plurality of rules stored in a knowledge database.

8. (Canceled)

9. (Original) The method of claim 5 further comprising :  
receiving an indication input indicating whether the potential solution was successful;  
and  
if the indication input indicates that the potential solution was not successful, then adding the symptom input and facts input to a provisional rules list.

10. (Original) The method of claim 9 further comprising :  
receiving a potential solution input; and  
adding the symptom input and potential solution input as one of the plurality of rules stored in a knowledge database.

11. (Currently Amended) An expert system for troubleshooting a problem in a cellular network site, the expert system comprising:

a user interface for transmitting and receiving data to and from the expert system;  
an inference engine connected to the user interface, wherein the inference engine receives data from the user interface and transmits data to the user interface;

a knowledge database connected to the inference engine, wherein the knowledge database comprises a plurality of rules used to provide potential solutions to the problem, wherein the plurality of rules comprise a plurality of if-then statements wherein the if portion corresponds to the problem and the then portion corresponds to a potential solution; and

a domain database, wherein the domain database comprises a plurality of facts regarding the cellular network site.

12. (Original) The expert system of claim 11 further comprising a provisional rules list comprising problem inputs that have not resulted in any potential solutions.

13. (Canceled)

14. (Original) The expert system of claim 11 wherein the knowledge database is populated with the plurality of rules using a knowledge acquisition facility (KAF), wherein the KAF comprises a software application for interviewing cellular network site engineers.

15. (Original) The expert system of claim 14 wherein the KAF formulates a plurality of if-then statements from the interviews with the cellular network site engineers wherein the plurality of if-then statements are stored as the plurality of rules in the knowledge database.

16. (New) A computer-readable medium having computer-executable instructions which, when executed on a computer, cause the computer to perform a method for troubleshooting a problem associated with a cellular network site, the method comprising:

receiving a symptom input describing the symptoms of the problem;

determining whether at least one of a plurality of rules is invoked by the symptom input, wherein the plurality of rules comprise a plurality of if-then statements, wherein the plurality of if-then statements comprise a plurality of if portions and a plurality of then portions, the then portions corresponding to potential solutions to the problem; and

if so, then outputting a potential solution to the problem wherein the potential solution is determined by the invoked rule.